

A Review of the Nearctic Species of *Platystethus*

(Coleoptera : Staphylinidae)

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During the course of a survey of synanthropic fly species, numerous species of staphylinid beetles were encountered. Among these were species of *Platystethus* found in manure associated with species of *Musca*, *Fannia*, *Stomoxys* and other Diptera and in damp soil associated with the eye gnat, *Hippelates collusor* (Townsend). The biology of the Nearctic species of *Platystethus* has yet to be investigated. It is assumed that interaction of these often abundant predators and early stages of flies is important in the dynamics of fly populations. As a preliminary step toward a better understanding of the genus *Platystethus* we review the systematics and distribution of the Nearctic species of the genus. Two species of *Platystethus* have been hitherto recorded from the Nearctic region. In this paper we record for the first time from the Nearctic region the Palearctic species *Platystethus cornutus* Gravenhorst.

Platystethus is a member of the tribe Oxytelini of the subfamily Oxytelinae. The genus can be defined among the Staphylinidae by the following four characters: 1) second sternite present, 2) tarsi three-segmented, 3) inner apical angles of the elytra rounded, 4) middle coxae separate. The last of these distinguishes *Platystethus* from *Bledius* in which genus the middle coxae are contiguous. Most keys separate *Platystethus* and *Bledius* by the statement that in the former the anterior tibiae possess only a single row of spines. However, two rows of spines are often present.

PLATYSTETHUS Mannerheim

Platystethus Mannerheim, 1831, p. 460.

Form subparallel, depressed. *Head* with supraantennal prominences; nuchal constriction present; gular sutures united or obliterated in front, widely divergent behind; antennae incrassate; labrum transverse, apex emarginate, anterior angles membranous; mandibles gently arcuate, with two or three teeth on inner edge; maxillary palpi four-segmented, first segment small, second longer than wide, curved, widest at apex, third about as long and as wide as second, fourth narrower than third and a little shorter, narrowed to apex; labial palpi three-segmented, first segment longer than wide, second narrower and longer than first, third narrower than second and about one-half as long. *Thorax* pronotum with sides evenly arcuate into base; hypomera separated from disc by carina; trochantin prominent; epimera absent; prosternal process short; middle coxae separated by mesosternal and metasternal processes which meet between them; elytra dehiscent; tibiae with

one or two rows of spines on outer edge; tarsi three-segmented, segments one and two short, segment three much longer than one and two together.

KEY TO THE NEARCTIC SPECIES OF PLATYSTETHUS

1. Pronotum with reticulate ground sculpture *cornutus* Gravenhorst
 Pronotum without ground sculpture 2
2. Punctures of head sparse, discrete *spiculus* Erichson
 Punctures of head dense towards the sides, arranged in close-set irregular
 longitudinal grooves *americanus* Erichson

PLATYSTETHUS AMERICANUS Erichson

Platystethus americanus Erichson, 1840, p. 784.

MALE.—*Color* black except elytra and femora piceous, tibiae and tarsi testaceous. *Head* subquadrate; tempora twice as long as eyes; not narrowed to a neck; surface polished and sparsely punctured on disc, transversely rugulose anteriorly, coarsely punctured at sides with punctures arranged in irregular, closely placed longitudinal grooves; with straight impunctate groove above eye; each outer angle of clypeus produced in straight slender horn distinctly longer than space between horns. Antennae with first three segments elongate, segments two and three subequal, shorter than first, four through six moniliform, seven through ten transverse, eleven as long as two preceding. *Pronotum* as wide as and shorter than head, wider than long, surface polished, finely sparsely punctured, with fine central longitudinal groove. *Elytra* conjointly a little narrower than pronotum, a little wider than long, very finely rugulose apically. *Abdomen* highly polished with very few fine punctures; seventh visible sternite with semicircular impression in central third extending almost to base.

FEMALE.—Head narrower than pronotum, anterior angles of clypeus hardly produced, tempora about as long as eye, pronotum as long as head, seventh visible sternite not impressed.

LENGTH.—2.6–4.2 mm.

TYPE LOCALITY.—“Pennsylvania et Virginia.”

Location of type either in Hope Museum, Oxford or Zoologische Museum, Berlin.

Common in manure throughout the United States and in Mexico. In California, much more common in isolated field droppings than in accumulated manure deposits. Occasionally taken in other decaying organic matter and at lights.

This species is most easily recognized by the strong anastomotic, punctured longitudinal grooves at the sides of the head above and behind the eyes.

PLATYSTETHUS SPICULUS Erichson

Platystethus spiculus Erichson, 1840, p. 784.

MALE.—*Color* piceous except elytra rufopiceous and legs testaceous. *Head* subquadrate; tempora almost twice as long as eye; not narrowed to a neck; surface

polished and very finely sparsely punctured throughout with clypeus faintly microreticulate; with three longitudinal impunctate grooves internal to each eye; each outer anterior angle of clypeus produced as slightly arcuate slender horn about as long as space between the horns. Antennae with first three segments elongate, segments two and three shorter than first, four and five moniliform, six through ten transverse, eleven as long as two preceding. *Pronotum* as wide as and somewhat shorter than head, wider than head, wider than long; surface polished, finely sparsely punctured; with fine central longitudinal groove. *Elytra* conjointly about as wide as pronotum, a little wider than long, very finely sparsely punctured and very finely rugulose on disc and apically. *Abdomen* highly polished with very few fine punctures; seventh visible sternite semicircularly impressed in central third, impression extending almost to base of segment.

FEMALE.—Head narrower than pronotum; anterior angles of clypeus slightly produced; with two longitudinal impunctate grooves internal to each eye; tempora about as long as eye; pronotum as long as head; seventh visible sternite not impressed.

LENGTH.—2.0 mm.

TYPE LOCALITY.—“Caracas in Columbia” (= Venezuela).

Originally described from Venezuela this species has been reported from Argentina, Colombia, Panama, Guatemala, Mexico, the West Indies, and in the United States from Texas (Casey, 1886) and southern California (Moore, 1937). We have seen material from the following: San Diego County, Imperial County, Orange County, Los Angeles County, Riverside County, Kern County, and Stanislaus County, California (Legner and Olton, 1970); Tucson, Phoenix, Ehenberg and Oak Creek Canyon, Arizona; Tehuacan and Chilpancingo, Mexico and Sabana Grande, Puerto Rico. E. F. Legner and G. S. Olton collected it most often from accumulated manure. It has also been collected in damp sand at Thermal, California in a date grove in association with *Hippolates collusor* by E. F. Legner, from decaying watermelon at Blythe, California by G. S. Olton and by vacuum by E. I. Schlinger from cotton fields.

PLATYSTETHUS CORNUTUS Gravenhorst

Platystethus cornutus Gravenhorst, 1802, p. 109.

MALE.—*Color* black except legs and mouth parts testaceous with femora, coxae and bases of antennae infumate, elytra flavus on disc and toward suture with suture, sides, base and apex fuliginous to piceous. *Head* subquadrate; tempora a little longer than eyes; not narrowed behind to a neck, surface strongly reticulate except central tumidity and strigulose antennal tubercles; disc rather strongly punctured, punctures separated by one to two times their diameters; with single straight longitudinal impunctate groove above each eye; each outer anterior angle of clypeus produced in long straight horn about as long as space between horns. Antennae with first three segments elongate, second segment about one-half longer than third, fourth through sixth moniliform, seventh through tenth slightly transverse, increasing gradually in width, eleventh more than twice as long as tenth. *Pronotum*

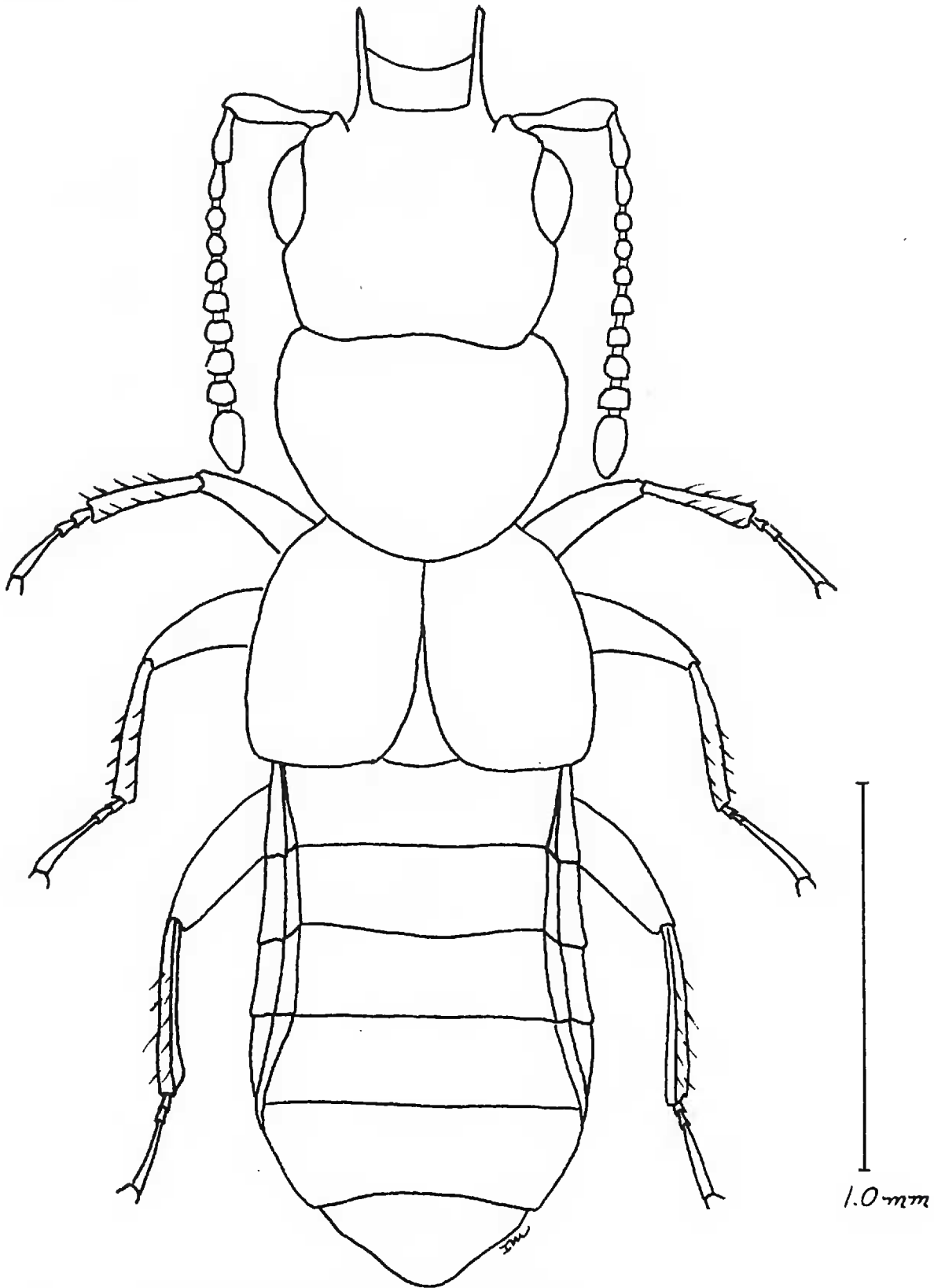


FIG. 1. *Platystethus cornutus* Gravenhorst, Male.

as wide as and shorter than head, wider than long; surface strongly reticulate throughout; as strongly but more sparsely punctured than head; with impressed longitudinal central groove. *Elytra* conjointly a little narrower and about as long as pronotum; reticulate and punctured as pronotum. *Abdomen* strongly reticulate, very finely sparsely punctured; seventh visible sternite deeply, semicircularly emarginate in central third, each side with two elongate, horn-like processes.

FEMALE.—Head narrower than pronotum; anterior angles of clypeus slightly produced; seventh visible sternite lobed.

LENGTH.—2.5–3.1 mm. (Fig. 1).

TYPE LOCALITY.—Not recorded but presumably Germany.

Location of type probably in the Zoologische Museum, Berlin.

This species is easily known by its strongly reticulate head and pronotum.

Previously known from the Palaearctic and Asiatic regions where it has been reported from “dung and decaying matter.” A single female was taken on highway 30 two miles east of North Platte, Lincoln County, Nebraska, elevation 2,800 feet, 23 July 1970 by vacuum from emergent vegetation associated with a marsh by T. W. Fisher and R. E. Orth.

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A Review of the Genus *Leptopteromyia* in the Western Hemisphere¹

(Diptera: Leptogastridae)

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In 1907 Williston published the *nomen nudum* *Leptopteromyia*, but he validated the name in 1908 by publishing a figure of *Leptopteromyia*

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